

AMERICAN BEE JOURNAL



Volume 98

1958

Number 7

JULY

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- Our Cover Picture -

WHO IS IT? — A Contest, Editor Pat Diehnelt



At right, Dr. Milum "plays" teacher to Jack Deyell, Editor of *Gleanings* (left) and M. G. Dadant, Associate Editor of *ABJ*.

The June Mystery Guest Is Vern G. Milum

Vern is our well loved Illinois Apiculturist at the University in Champaign-Urbana. He was born in 1894 in Viola, Wisconsin. As a Lieutenant in the Infantry he sailed overseas in January 1918. He was wounded in the second battle of the Marne and discharged at Cape May in May 1919. He graduated from the University of Wisconsin. He was later in charge of apiculture at the University of Illinois. Ph.D., University of Wisconsin, 1927. He has been Secretary of the Ill. State Association and the former American Honey Producers' League. Member of Board of Directors of American Honey Institute; Secretary of Federation 1944-1945; Chairman of Honey Plant Committee 1943; member of Educational Research Committee 1954-1955 — and so on — and so on. His research includes general management; temperature relations of honeybees; behavior; pests of combs; bee diseases; factors affecting the physical and chemical properties of honey in processing and storage; and honey bee communication. That's Vern by golly, and we all love him.

The Mystery Guest for This Month

The influence of this man extends over a wide area of the United States. He is one whose words weigh heavily because they come from a very diversified practical experience in beekeeping and in teaching what he knows to many others. Wherever G - - - excuse the slip! You finish it. Just send your guess as to who he is and what he has done to Cover Contest, *ABJ*. As before, for the best answer \$5.00 and a three year subscription; second, two years; third, one year. All others four months each. Answers will be published in August as far as room allows.

WINNERS FOR THE MAY COVER CONTEST

Harold J. Clay

No. 1—Harry T. Starnes, Crawfordsville, Indiana

The May Mystery Guest is Harold J. Clay who, for decades, has been the United States contact man to American beekeepers. He speaks also as one having authority yet he is always genial and affable. His handshake is

warm and soft. You knew he had authority but that your request for council was in friendly hands. In April he retired and will spend some time in Florida. We will look for him at the meeting of the Federation in Tampa in 1959. He will be a hard man to replace in Washington. Many beekeepers have often remarked "Api-

culture must have a friend in government" even though they did not actually name Mr. Clay.

No. 2—(1) Francis Wickham, Warren, Pennsylvania

Harold J. Clay of the United States Department of Agriculture has long been associated with the American beekeeping industry. For many years he edited the U.S.D.A. Honey Marketing Report which gives crop conditions and honey prices. Later, in the Production and Marketing Administration, he helped the industry with its problems in the supply of vital materials during the war years. With the advent of price support for honey he administered the program, first under P.M.A. and later in the Sugar Division.

No. 2—(2) Raymond W. Herrick, Jr., Baltic, Connecticut

Harold J. Clay of the United States Department of Agriculture has long been associated with the American beekeeping industry. For many years he edited the U.S.D.A. Honey Market Report giving conditions and honey prices. Later in the Production and Marketing Administration, he helped the industry with its problems in the supply of vital materials during the war years. With the coming of price support he administered the program, first under P.M.A. and then in the Sugar Division.

No. 2—(3) Joseph Samartin, Holmes, Pennsylvania

My answer for the Mystery Guest for May is Harold J. Clay of the United States Department of Agriculture. He has been associated with this industry a long time. He edited the U.S.D.A. Honey Market Report giving crop conditions and prices. Later, in the Production and Marketing Administration, he helped the industry with its problems in the supply of vital materials during the war. With the coming of price support he administered this program, first under P.M.A. and then in the Sugar Division.

No. 3—James E. Davis, Jr., Navasota, Texas

This man, associated with beekeeping for so many years through U.S.D.A., edited the Honey Market Report giving crop conditions and honey prices. He also helped the industry in the supply of vital material during the war through the Production and Marketing Administration. He administered price support under P.M.A. and then in the Sugar Division. It is none other than Harold J. Clay of the U.S.D.A.

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THANK YOU—

Each and every one for your patience and understanding in our problem of delayed shipments. It is neither our desire or practice where it can possibly be avoided.

Early weather conditions were such that we could neither produce queens nor build up our colonies. We lost time we could not overcome all through the season.

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The Commercial Beekeeper

If you operate for commercial production by furnishing bees for seed this picture from Harry Whitcombe's book "Bees Are My Business" (G. P. Putnam and Sons) shows what a job of efficient pollination can do for the yield of seed from a few seed heads. Totalled in bushels it means wealth for the farmer and a real profit for the beekeeper.

Do You Know How Much It Costs To Produce A Pound Of Honey?

by B. Elwood Montgomery
Purdue University

I have been trying to learn something about the cost—in time, investment and labor—of producing honey. It appears that there is less available information on this than on almost any other phase of beekeeping, and certainly less than on other agricultural production. Is this true because beekeepers are not interested in costs and profits, or because they don't keep records?

The only published economic studies of beekeeping which I know were made 26 to 30 years ago, in east and west coastal states (New York, New Jersey, California and Oregon). While these are long out-of-date a study of them in comparison with present day prices is interesting and stimulating.

The investment per colony indicated in one of these studies was \$25.12, of which \$16.87 was the value of bees, hives, supers, combs and hive furniture. The remainder consisted of equipment (extractors, uncapping knives, honey tanks, etc.) and honey house. To test the comparison with present day values of a beekeeper's investment, I took bee supply catalogues a few days ago, and calculated the cost of ten colonies of bees. This included ten packages of bees with express charges and ten complete hives for extracted honey production. Such a "complete" hive was interpreted as consisting of two hive bodies with 10 frames each and five shallow supers with eight frames each. The cost of 10 hives with bees



was found to be just a few cents less than \$400.00. The cost would be more than \$40.00 for a single hive because of the higher unit price and proportionately higher express charges. This cost does not include any labor charges for assembling the hives and frames, nor any other required equipment. I have no doubt that investment in a honey house and equipment would also equal two and half times that of 25 years ago.

The average annual operating expenses in these studies amounted to about \$7.75 per colony. This included:

1. Interest on investment (6%)
2. Depreciation on value of bees and equipment (6% & 7%)

3. Labor (average of approximately \$3.00 per colony)
4. Rent
5. Cost of current supplies (wire, foundation, etc.)

To show how such dollars and cents costs might work out today, it may be noted that one study shows the labor required per colony was 4½ hours (at a cost of \$3.00! !).

It would certainly be interesting to figure out your costs last year and see how they compare with the figure I have quoted. If you amuse (?) yourself by doing this the next rainy day when you have nothing to keep you busy in the shop or honey house, I would be glad to have you write me what you found out. If you want to you may just tell what your costs were per colony, or per pound of honey.

If you decide to do such figuring, you may discover that you don't have enough accurate records. To be truthful, that is the real reason I have written about the matter. I found an old record book for beekeepers some time ago, and as it did not seem to be quite good enough I asked the experts on record books in our Agricultural Economics Department to revise it. We now have the revised form and a copy will be sent to anyone who writes me, asking for it. It includes records for labor, cash expenses and receipts, inventory, and apiary management notes. Summary and analysis sheets which may be used to calculate costs,

income and profit at the end of the year complete the book.

Although such a record should be started at the beginning of the year,

considerable value can still be obtained from it. Also if several beekeepers use it and report faults or omissions, it can be improved and a

better one prepared for use from the beginning of the season. (The Purdue page, Monthly News Letter, Indiana State Association, May 1958)

ANYTIME IS REQUEENING TIME

by G. H. Cale, Jr.

All beekeepers — commercial or hobbyist—recognize and value the effect of a good queen upon a colony of bees. We know what happens to a colony that is headed by a weak or failing queen. We know, also, the populous, honey-getting colony that may be built up by a vigorous and prolific queen. It is well for all of us, then, to take some time to study those characteristics which are exhibited by a good queen, as well as means and ways of safe introduction of queen bees.

There is one trait of the queen bee which we may mention once, and then forget for the rest of this discussion. The characteristics of quality which any queen may impart to her offspring—i.e., her worker and virgin progeny—are due to inheritance. The queen and the drone, or drones, to which she mated are equally responsible for the good qualities exhibited by the worker bees of a colony. Since this factor may not be controlled by the purchaser of queen bees, we can only buy and hope that the queen bee raiser has thoroughly tested his stock ahead of sale.

How can we tell a good queen? Does she have visible physical attributes by which we may judge her quality?

In our apiaries we have had short, stubby queens that were very poor—and very excellent. We have had medium-sized queens that were very poor—and very excellent. We have had large, long, well-proportioned queens that were very poor—and very excellent. Here are facts—propounded and confounded!

In general, however, we have come to prefer one of the above. Our practical experience with queens has led us to prefer the long, well-proportioned queens; those that have considerable depth to the abdomen—from dorsal to ventral surface. A later study and knowledge of the physical attributes of queens has strengthened the above preference.

A portion of the queen's reproductive organs is composed of two ovaries, each ovary being made up of a varying number of thread-like egg tubules called ovarioles. The eggs



arise in the tip of the ovarioles and, accompanied by small nutrition cells, follow one another like morse code (.....) down the length of the egg tubule.

The work done by a number of investigators points to (but does not prove) a correlation between the numbers and length of ovarioles and the oviposition rate of queen bees. But what does all this prove? Nothing! And yet without being able to prove our thoughts, we have decided: 1. Egg tubules should be long to allow for maximum egg development, therefore a queen with a long abdomen is desirable. 2. There is a theoretical possibility for the development of 200 egg tubules in each ovary (a total of 400 per queen). That many ovarioles would require considerable space for proper development, therefore a queen with the greatest dorsal-ventral depth to the abdomen is desirable.

The work of a good queen is quickly apparent in a colony. Full combs of solid worker brood, with very few empty or open cells, advertise the presence of a good queen.

It is not always possible, however, to pass judgment immediately upon a queen because of her brood pattern. In the early spring, particularly in the small colonies with insufficient reserve stores—the brood pattern is quite often not a large one, and may not be solid. Small colonies given a full frame of emerging brood with adhering bees at this time will soon make the queen prove her ability.

A good queen should reach and maintain an egg-laying rate of at least 1200 to 1500 eggs per day. This can be determined by a quick inspection of the sealed brood area—which should contain from 600 to 700 square inches of sealed brood. The welfare of the colony, as well as our welfare as beekeepers, demands that queens which do not quickly reach and maintain this peak in the spring be immediately replaced.

Much has been written on queen introduction, pointing out reasons why a particular season or time of the year is the best time to requeen. *Bosh, tosh, and fiddlesticks!!* There is no best time of the year to requeen a colony of bees.

THE TIME TO REQUEEN A COLONY OF BEES IS WHEN THE QUEEN IS FAILING, REGARDLESS OF THE TIME OF YEAR OR SEASON.

Some beekeepers practice systematic spring requeening and there is surely no fault to find with such a practice. It might be pointed out, however, that the requeening of all colonies in the spring does not necessarily mean that all colonies will automatically have good queens. It is the work of but a moment to check the results of a queen's work and every colony inspection subsequent to—and after—the honeyflow should include such a check. Checking is not sufficient, however, we should be prepared to do something about it if a failing or poor queen is located.

Benton Cage—The Benton, or mailing, cage is probably used more than any other means in queen introduction. (Turn The Page)

duction. After removing the old queen from the colony, prepare the mailing cage for use by removing all of the attendant worker bees. Tear off the small piece of cardboard that covers the hole leading to the candy and with a nail or match, punch a hole through the candy. Place the cage between two frames of brood—preferably larvae, since the nurse bees of the hive will care for the queen at the same time they feed the young larvae—and close the hive. While the bees of the colony are eating through the candy to release the queen, the nurse bees will be giving the queen the rich royal jelly that is necessary for the proper expansion of her egg tubules. The queen is released in about three days and usually commences laying immediately.

The Benton cage works well, however, only during a portion of the year. Acceptance of new queens during periods other than fruit bloom and fall flow may be relatively poor with this cage.

Push-in Cage—for almost perfect introduction, in any season of the year and under all kinds of conditions, we use a screen wire push-in cage. A piece of screen wire is cut into a rectangle about $3\frac{1}{2}$ by 4 inches. A one-half inch square is cut out of each corner and the one-half inch strips are then folded up at right angles on all four sides. This gives you a four-sided screen wire box, with one-half inch sides, open bottom, and a $2\frac{1}{2}$ by 3 inch top.

After removing the old queen from the colony, find a comb of emerging brood and shake the bees from it. Place the new queen down on an area with emerging workers, place the cage over the queen, and push the sides of the cage into the comb. Three days later you must return to the colony and release the queen from the screen wire cage.

The push-in cage works well during the entire year—however its use necessitates an extra trip to the apiary to release the queen.

Nucleus Replacement—This method of replacement of poor queens has a number of very good reasons in its favor. Very early in the spring, one or two frame nuclei of brood and bees are made up in outyards and given a queen—using either the Benton cage or the push-in cage for introduction. These nuclei are fed and allowed to grow beyond five-frame strength.

These nuclei may be used for colony requeening at any time during the

year. If they are left in the out-yards in which they are made—about 15% as many nuclei as there are colonies in the yard—the task of requeening becomes a simple, five-minute, or less, operation.

The old queen is located and, along with one or two frames of her brood and bees, removed from the colony. The entire nucleus with the new queen is then placed into the colony to be requeened—enough empty combs being removed from the colony to accommodate the number of combs in the nuclei. The old queen and her bees and brood are placed in nuclei, to be requeened at a later date.

The nucleus replacement has one very strong factor in its recommendation that is not present with either of the two previously mentioned ways of queen introduction. Queens placed in nuclei and allowed to expand with egg-laying may be evaluated to some extent before they are introduced to strong colonies. They are insurance against replacing one poor queen with another of no better quality.

At the end of the season the remaining nuclei may be prepared for wintering over strong colonies. A hive body is divided into two compartments and two nuclei placed in the body. Each nucleus is given a separate entrance, and the entire body then placed above a double screen on top of the strong colony.

Nucleus wintered in the above manner are available for very early spring requeening. If not used during the first spring examination they may be placed in the back of the apiary, requeened if necessary, and used later in the season.

* * * *

How do we requeen? With the mailing cage and the push-in cage when necessary. With the nucleus replacement whenever possible. Why? Because the nucleus replacement for failing or poor queens not only requeens the colony and boosts the colony strength in worker bees, but also evaluates the new queen to some extent before her use.

When do we requeen? The time to requeen is not set for any one period of the year. The time to requeen is when there is evidence of a failing or poor queen in a colony of bees. Don't wait! DO IT NOW!

More Beekeepers Needed

According to the Canadian Bee Journal, authorities in that great expanse of country are becoming agitated over the lack of bees for pollination in all the provinces. More and more, farming is being done on an extensive scale, with much of the open prairie and waste land being turned into tillable land, and, necessarily less and less waste land to harbor native wild insects which formerly did their share of the pollination of legume crops.

At the same time, in 1957 there were only about one third the number of colonies in Ontario that were there in 1956, and the average per colony of honey had also declined. The large 1957 crop will no doubt be encouraging for an increase in bees, but at the same time, the honey price and market has had the opposite effect.

Nova Scotia Beekeeping

E. A. Karno, apiarist of the Nova Scotia Dep't of Agriculture reports in the Canadian Bee Journal that the limit for apiary size is 30 colonies (might be better if more of us used the same yardstick—Ed.) and that there is no major spring flow though they do get a slow flow through most of the summer. He asserts that they do have the biggest goldenrod and aster honeyflow of any section in the North American Continent. Their winters have rapid changes and excessive precipitation. Looks like an interesting place to work, especially to get colonies in shape for fruit pollination in spring.

Controversy in France on Spraying

One of the major honey crops of France is secured from fields of rape. This source seems to be minor in North America, perhaps because rape is not largely cultivated. But in France it seems necessary to spray the rape, apparently during bloom. As a consequence there have been quite heavy losses to the beekeepers, who, in turn, have appealed to the government for compensation for their losses. The conclusions are still undecided, but in the French bee press no punches are pulled on the liability for such bee losses. The decision, apparently defers upon just when the rape may be considered "in full bloom."



Webs, tunnels, larvae, and pupae of the greater wax moth. The larvae are busy destroying a comb. They prefer nice expensive brood comb.

One Shot For Moth

by G. H. Cale, Sr.

When H. M. Krebs told about his experience with ethylene dibromide for moth control in April, 1957, on page 132 of the Journal, he immediately set off a chain reaction in the minds and interests of all our apiary men because, as all beekeepers know, the bee moth is a perpetual enemy that can cause much economic loss and one that demands a constant fight to keep under control.

The beauty of ethylene dibromide is that a single fumigation of combs in bodies or supers, stacked up conveniently for treatment, kills all stages of the bee moth in a single dose and this has never been possible before. Sulphur, burned in the storage room, was perhaps the first fumigant but the eggs were left to start infection again. Carbon disulphide was dangerous in the presence of fire and also left the eggs. Methyl bromide is also very dangerous to the operator. Cyanide is also dangerous especially inside and fumigation must be repeated also when it is used.

Having gone through the gamut of all these chemicals we settled on cyanide but provided gas masks for inside fumigation and put up with the

second and sometimes third treatments to get the moth larvae which hatch from the eggs left the first time. Cyanide was used for stored combs, for temporary fumigation outdoors, and for killing bees wherever necessary.

Since Krebs reported his success with ethylene dibromide we have forgotten about cyanide except for disposing of bees. It is still the best for that. But, when it comes to bee moth, the dibromide has stolen the whole show. We have tried it outdoors, with moth present in all stages, and, of course, with stacked bodies and supers of combs with no moth observable. We have used it inside in the storage room similarly. In all cases moths and larvae were killed and eggs left failed to hatch. The combs were left undisturbed and watched carefully for any signs of reinfestation. In storage the combs in the stacks were free from moth with one fumigation for the entire six months interval between treatment and reuse for the honey-flow the following season.

The only reinfestation took place in combs in bodies stacked outdoors where bees were nearby. Adult fe-

males laid eggs in cracks and small, new larvae worked in so another treatment had to be given before these supers and bodies were removed to inside storage.

Krebs, in his report, says that he placed thirty-five supers of combs, heavily infested with moths, larvae and eggs in a low roofed building with a rough wood floor. Five stacks of seven supers each were each treated by pouring a small amount of the chemical on sacking at the top with no effort to close any cracks or make things tight. Later some tiny larvae were found in the top supers of two stacks and so another chemical sprinkling finished the job. Our experience was quite similar with a total of about two thousand supers. From repeated use we have settled on about a tablespoonful of the liquid to a stack of about eight supers, about as high as one cares to reach. At this rate a gallon will treat between one and two thousand supers.

Ethylene dibromide is not free from danger to the operator. On the skin it may cause a burn or blister unless it is thoroughly washed off. When

(Turn The Page)

it is breathed it will irritate the lung tissues. So use it with care. Otherwise it is much easier and safer to use than cyanide. It will also, unlike cyanide, keep almost indefinitely in its metal container if the lid is on tightly.

We have found it easy to carry in the tool kit in a polyethylene plastic bottle like the ones used to pack honey. When the top is tight,

the fumigant will carry well and can be used handily whenever it is needed. A cloth or wad of cotton or a square of tissue or similar material will serve as a pad for application of the liquid. I use inner covers, holes closed, with Kimpak tracked in the center and these boards are piled up in the storage room until they are again used for the tops of the stacked bodies of combs after the extracting season.



What about Ventilation?

The hive covers in this yard, belonging to George Hankhammer of Belleville, Illinois, are raised up and pushed back for air. It makes considerable difference in the way bees put honey in the supers if they are not hampered by heat. A way to give bottom ventilation is to raise the front corners of the bottom body on triangular blocks. The Dadants used to make a straw mat of coarse grass, woven to-

gether, and placed on oil cloth which covered the frame tops. On the hive cover they used shade boards of wood with runners underneath. Now the hive cover may have built-in vent holes to provide ventilation across the inner cover. Shade will reduce sun heat but dense shade often cuts down the hours of field work seriously enough at times to make a difference in the crop.

Where To Get Pollen

On page 228, June, you have an item called "Where to Get Pollen." I have pollen on hand which was trapped a month ago from the bees when the dandelion and fruit trees were in bloom. This pollen is in pellet form. I also have pollen of this kind which was trapped about three years ago but this is in powdered form and clean from all bee legs and wings and so forth. I can supply pollen at any time as I have the equipment to collect it.

Walter Cook
3526 W. Highland Blvd.
Milwaukee, Wis.

Pollen Cycle of Gathering Winter Colonies

According to Jeffree and Allen of N. Scotland College of Agric. in Aberdeen, pollen storage takes a brisk upturn in April, and the maximum of pollen in storage is reached in July, after which there is a gradual diminution into October.

The same parties have deduced that the most advantageous strength of colonies in November for overwintering is between 8,000 and 15,000 bees in the cluster of healthy bees, and 20% larger when Nosema is present. The winter loss in such sized colonies would be about 22% while in smaller or much larger colonies, the loss would range between 36 and 44%.

Observation Hive

A new brochure by J. E. Eckert and put out by the California Experimental Station at Davis, Calif., has the title above. Plan for the hive and general instructions for its establishment and care are included. We assume copies are free.

Editorial—

FALL REQUEENING

The present summer leads the writer back to his active days in the apiary and the thought that this is surely one of the years when it will behoove the beekeeper to consider well the advisability of summer or fall requeening. In an ordinary season with perhaps just one major honeyflow, most likely queens going through their second year might possibly survive and do a fair job the following spring when spring requeening may be done.

This, however, seems to be one of those years when the queen will be called upon for egg laying right straight through. What I mean is that early flows from locust, dandelion and other plants called for early egg laying. The major flows are now following and, with ample sub-soil moisture, it looks like there may be minor or major flows right through the summer. Again this calls for unusually continuous laying for the queens.

Queens in their second year may keep the colony populated for all of the season. But "the rub" comes later. They may not have sufficient stamina to lay fall eggs enough to ensure a vigorous cluster of young bees for the winter. Or, just as bad, they may come through the winter and turn drone-layer in early spring when colony build-up is necessary.

Best be forewarned with late summer or fall requeening where necessary so the colony may add enough young bees from the new queen to make a strong cluster for winter. This is best done during a light flow or at its conclusion so acceptance will be at a maximum. In addition, queen breeders are cramped beyond capacity with spring orders, whereas, they are on a more leisurely basis in summer.



RENEGADE SWARM — This runaway swarm found a new home in an empty apple box. Members of the Middlesex County (Mass.) Association cut and tied the combs in a hive. (From John H. Furber, Auburndale, Mass.)



NEW USE FOR A TIRE — This swarm was in a bush by some abandoned farm buildings. The only thing available were two old tires and a piece of tin. It looked like a poor home to me but the bees thought differently. (From Richard Marquette, Nebraska)



VENTILATING — I took this picture of worker bees while they were busy ventilating at the entrance of a hive belonging to Mr. Biggers in San Mateo, Calif. They are lined up in two rows. No other colonies in the yard were arranged this way. (From John D. Haynie, Florida)



WISCONSIN QUEEN — Valeria Redmann, age 17, of New London, is our third honey queen. She was crowned at Beaver Dam at the annual convention by the former queen, Carol Jawort, Manawa. Valeria is the daughter of Mr. and Mrs. Edward Redmann and she is a senior at Little Wolf High, and is active in F.H.A. and 4-H. She received the Betty Crocker homemakers award for 1958. Her activities as Queen include attendance at the Federation Convention; presentation of a gift of Wisconsin honey to the wife of Governor O'Neil; speaking at Rotary, Lions, Homemakers and F.H.A.; honey demonstrations; interviews on TV and she is slated for conventions and the state fair. (from Esther M. Piechowski, Red Granite).



BOWL OF FRIENDSHIP — Ralph Smith of Superior Honey Co. is handed a bowl of friendship by Allen McKay in Hawaii and initiated into the Waikiki Lions Club Calabash Cousins. Mr. McKay is president. The object is to promote friendship and goodwill among nations. (From Glen Perrins, Ogden, Utah.)



The Sideline Beekeeper

Frank Lally, Rockport, Illinois, sends this picture of an observation hive in the biology laboratory at Lewis College of Science and Technology, near Lockport. Mr. Lally looks closely after these bees, often feeding them and at times using a pollen substitute until natural pollen is available. He lives near enough to the school to maintain this observation hive. Many sideliners have equal opportunity to develop a project of this kind.

Relocation In Swarm Control

by Joseph O. Moffett

There are occasions when "relocation" can be used as a method of "swarm control." It is not recommended as the best way of combatting the swarming problem. All of the well-known and frequently advised "swarm precaution" measures, such as young queens, early and ample supering, ventilation, etc. should be practiced.

Often though, through improper timing or other reasons, a beekeeper may still find himself confronted with swarming problems soon after the main flow has started. It is then that "relocation" can be used as an emergency measure. It should be considered only as an expedient which can be quickly done and when properly timed, will hold the bees and get them back to work.

The actual manipulation is very simple. The colony with swarming cells is moved to a new location, preferably to the rear of the yard. On the old stand, now vacant, is placed a nucleus, in standard equipment, having a new young queen and her brood and bees. This new colony on the old stand is then supered so it will look exactly like the original colony. *This is very important!!* The field bees will leave the old colony, now at the rear of the yard, visit the flowers, and then return to the new colony on the old stand.

On the old stand then there will be a new young queen with her brood and all the field bees from the original colony. There will be no swarming cells. In the following days the young queen will rapidly expand the



brood nest and the field bees will resume their foraging with new vigor. The swarming desire will be eliminated in that colony for the remainder of the flow.

The old colony at the rear of the yard will have the old queen, her brood with queen cells, but no field bees. Having lost the field bees, the remainder of the colony will lose its desire to swarm and will tear out the queen cells. When the brood hatches, this greatly weakened colony will recover and will resume normal activity.

In order to carry this out successfully the beekeeper must have an ample supply of new young queens in nuclei in reserve in each yard.

Their preparation should be started 6 to 8 weeks before the main flow. In a yard of 50 colonies it would be well to have 15 to 20 of these nuclei ready and waiting at the start of the main flow.

Also for "Relocation" to be thoroughly successful, the colony with cells must be found and moved *before* the swarming urge has progressed too far!! If some of the cells are sealed and nearly ripe, it is too late to do this as outlined, and then the field bees will have already started their "loafing" period just before swarming. They will no longer go to the field to visit the flowers and hence will not become separated from the old queen and queen cells, and the colony will still swarm, even though it has been relocated. Usually one can tell whether the colony has or has not started loafing preparatory to swarming. If they have, relocation can still be done, but in that case, all swarming cells must be cut out. Even then it is not always thoroughly successful. It is fairly safe to assume that if the queen cells are not sealed or just partly sealed, loafing has not yet started and relocation can be carried out without cutting out the cells.

If the bees in the old colony can be driven down out of the supers at the time of the operation, then these supers can be returned to the old stand and placed on top of the young queen. This is to be sure the old queen is not returned to the old stand.

Relocation should not be attempted unless there is a good honeyflow in

progress, as otherwise the field bees on returning might kill the new queen.

It frequently happens that the old colony will supersede the old queen

after being relocated.

It is a great convenience to use a suitable hand truck in moving the colonies.

(Colorado B Notes, May 1958)



Figure 1

A Simple Change In The Standard Comb Honey Super Increases High Quality Sections

by S. J. Otis

Fig. 1 shows how a standard comb honey super has been altered so as to allow a combined beeway and ventilating slot between all section holders as well as between the outside holders and the super sides. Bees can use these slots to move to supers above without crowding the sections and leaving travel stains.

As seen in Fig. 1, only six section holders are used but an additional four separators are required. Also, six of the twelve separators have three $\frac{1}{4}$ " \times $\frac{3}{4}$ " \times $4\frac{1}{2}$ " cleats fastened to them as shown in Fig. 2. These cleats are available from bee supply houses and are fastened to the separators with small $\frac{1}{2}$ " long nails which are clinched to prevent their pulling out when the super is taken apart to remove the honey. Side springs and end wedges remain the same as in the standard super.

Fig. 3 shows a group of typical sections removed from supers of this type which I use exclusively in my yards.

Wisconsin

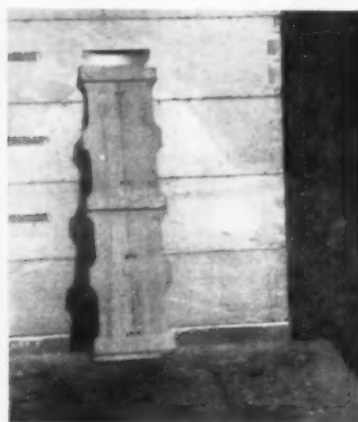


Figure 2



Figure 3

"The Fragrant City of Wax"

George Graffam, Whitefield, Maine, has published a paper bound, 112 page book, about bees and beekeeping that is fascinating and good reading. He has cared for bees for more than half a century and spent ten years keeping bees in various states, including Florida, returning in 1922 to Whitefield where he has kept bees ever since. Besides beekeeping he constructs greenhouses and has a wholesale and retail plant business. He is also an ordained minister.

His article in the "Sideline" department in January, "Bees Are Adaptable," stirs up brain cells be-

A SELF-HIVING SWARM

by Hilbert Sorensen

One day the first part of July 1955 a very large swarm of bees had clustered about four feet above the ground on a nearby cedar tree. In a few moments another swarm issued from a nearby hive and joined the first big cluster. This made an enormous bunch of bees. There were so many that one hive body could not contain them. So I decided that two hive bodies were necessary.

It took me a little while to build a stand and get the two hives ready. I built the stand by using two saw horses with a couple of wide boards upon which I placed the hives. I intended to place them close against the bee cluster so all they had to do was to crawl in.

Just as I had everything ready for the bees to enter the hives, I noticed a sudden stir among the clustered bees. In a few seconds they began to fly away and in a minute or two they were all in the air. I had seen bees leave this way before and when they start to fly they are gone to find a new home far away.

I regretted to lose such a large swarm, but there was nothing I could do but say "Good-Bye" to them and let them go. I had been too slow getting things ready for them and they were gone.

For 10 or 15 minutes the air above the trees about the apiary seemed full of bees flying in every direction. Usually when they break cluster they fly straight for their destination and I expected these to do the same.

Soon I noticed some bees flying about the hives I had intended them to occupy. Then more and more came and it was evident that they were coming back. In a few minutes they were all clustered about the hives. Soon they had all entered and I had them in my possession again.

Wisconsin

cause most of us have seen the very adaptations he describes. So, in his book, he provokes the reader into further consideration of the life and habits of the honey bee. One reviewer phrases an estimate of the book with the words "What poetry in a book of prose." Copies of the book may be obtained from Geo. C. Graffam, Whitefield, Maine. Price \$2.25.



A log hive over 100 years old which I collected on my inspection tour.



Some of my double brood chambers carrying telescope winter covers.



My honey sign. My cousin and myself (at right) holding spring mushrooms.



Part of my colonies wrapped in black paper to give them wind protection.

I STILL LIKE MY BEES

by W. Collings

In 1918 I had a neighbor who was having a public sale. In this sale he had advertised 5 hives of bees in real heavy poplar wood hives. Well, I purchased two of these hives at \$5.00 each. One proved to be O.K. and the other worth about 50 cents. I knew very little about picking them. I simply looked to see if bees were really coming out of the small entrances in front. At this time I was running a country general store. I would read all the bee magazines and catalogues I could get hold of. My good wife would watch the store and give me a chance to see my bees pretty often.

I remember one Sunday afternoon when we had company on the front porch, our uncle said, "There goes your swarm of bees." Yes, and sure enough they lit in a willow tree across the small stream of water. In the meantime I set an empty hive on a piece of burlap on the ground below the swarm. Then I proceeded to tie

two ladders together in order to reach the swarm which was located about twenty-five feet up the tree. Well, I grabbed my hand saw and started up the ladder and getting about two-thirds the way up, the ladders snapped in two and dropped me on my tail bone on a fair sized boulder.—Ouch! Well, yes it hurt, but I tied the ladders together again and up I went, this time got the limb and swarm sawed off so carried it down and shook it in front of the hive and the bees went in. It proved to make 70 pounds of honey. This was a July swarm.

In 39 years of beekeeping I have learned a great many things about bees and beekeeping. I am like Dr. Miller, I have used both 8 and 10 frame hives, some Modified, also used double-brood chambers and $\frac{1}{2}$ depth ones for queen laying and plenty of food for bees.

I have produced section, chunk, and extracted honey. My wife has

helped me with some spun honey which our grandchildren like very much. My grandson, John, says, "Grandad says honey cures everything. Ha!"

In fact, when I started keeping bees I had had a lot of stomach trouble. In 39 years I have eaten honey about every day and scarcely ever have anymore trouble.

In the meantime I have been one of Indiana's bee inspectors for 5 years covering about 20 counties. I remember in one county; that day I had a pilot with me. We called on a certain man who met us in the yard. I told him our business and he answered, "I have kept bees all my life and don't need your help." Well I talked to him like a good fellow explaining about pollination and diseases and finally he took us out, carrying a hammer, to his barn yard by a rail fence. Well here was one hive of bees with a bushel of rocks on the lid and nailed down with a

2x4 staked on each side. I got these removed and lid off and at the same time owner was swinging that hammer in the air and cussing us bee inspectors. The combs were crossed up. I then took my hive tool and spread the combs enough to see the brood, but I found no signs of American foulbrood. This man followed me to the house and I made out state papers, also gave him sample of bee

magazine and a catalogue and he then warmed up and I couldn't hardly get away from him. So you see, we inspectors have experiences that are not always roses.

At this writing I still maintain 110 hives of bees. On bad winter days I have a small shop with a store where I can build and repair my equipment. Indiana



Tampa Beekeeper Pushes Beekeeping As A Sideline And Makes Outstanding Progress

Mr. C. Wade, Memorial Drive, Tampa, is a very busy electrical man but he puts in much overtime in the production and retail marketing of honey from one hundred and fifty colonies. During fair time Mr. Wade takes leave from his regular work and stays with his exhibit, assisted by his wife, who usually is very thankful when the State Fair at Tampa is over. This is the third year Mr. Wade has won the trophy from the office of the Commissioner of Agriculture, Nathan Mayo. He has been exhibiting for seven years or longer at the State Fair and finds that it is good business to show and demonstrate your apary products.

Mr. Wade has succeeded in getting honey from practically every country in the world and has shown these samples in his state exhibit. He also sells honey cookbooks from the American Honey Institute, Madison, Wisconsin, at his State Fair exhibit and at his roadside stand, *Honey Acres*.

He is a past president of the State Beekeepers' Association and was instrumental in getting the State Beekeepers' Proceedings printed in 1951. He has served on the State Marketing Committee and put on a special honey display at Sears Roebuck and Company, Tampa, during National Honey Week.

John D. Haynie
Gainesville, Fla.

Cows Do Eat Combs

Remember the item, "Cows Eating Combs", on page 96, March 1957? A beekeeper in Colorado "B-Notes" saw cows eating stored combs. We suggested it might have been an overgrown Texas mouse. Now we are properly taken down by E. E. Salge of Garland, Texas, who says: "While we do have some Texas size mice, which we Texas beekeepers are not

too proud of, I do know that cows eat bee combs, especially those that have some pollen in the cells. A few years ago I moved a yard to a new location in a pasture where there was no stock at the time. Later I made a routine inspection of this yard, during winter, and found that the owner had run in some yearlings. They had knocked over about half the colonies and combs were scattered all around, most of them with the comb eaten out of the frames. I could not then carry the equipment in to the shop so I re-stacked it in the yard, thinking to pick it up in a few days. When I got back, two or three days later, I found the equipment scattered around again and more combs chewed out. Many of the frames were broken into bits when the stock tramped over them. I have had this happen in several instances but only a single colony was knocked over and the combs eaten. So cows definitely will eat combs but the mess they make is about as bad as that made by a bear."

E. E. Slage
Texas

Royal Jelly Cream

Earl C. Walker, China Lake, California, sends a clipping from the Los Angeles Examiner, with a glamorous Marilyn Monroe picture as an illustration, in which Judith Merrill, Beauty Editor, tells about Royal Jelly Cream containing 100 milligrams of royal jelly to the ounce, with a combination of easily absorbed skin conditioners and moisturizing agents to make a super rich cream. She says: "Overnight your skin will look brighter, the texture will seem finer, softer, younger—It is superb for the tender skin around the eyes. It is a splendid lubricant for a creepy throat.—A one ounce jar should last you about two months; at \$10, plus tax. A small price surely for the timeless, youthful loveliness that comes from the queen bee herself."

Beekeeping In Ireland

The Irish Beekeeping Federation (Erin) and the Department of Agriculture have reached the point that the Department is proposing to start research in beekeeping and send a beekeeper abroad for a study of various phases of beekeeping.

(Irish Beekeeper for November)



The Beginner and His Bees

Edited by
W. W. CLARKE, Jr.

Who sent this in? Some association. Strange are the mishaps of editors. Hunt and hunt and no trace. Well, anyway this is how beginners rapidly learn what's what about a colony of bees and there is no time any better than during a meeting when everyone with any experience wants to be the first to answer some of those questions that not long ago they were also asking.

From Ferdinand Goth
Southampton, Pa.

► 1. I have found a dead colony and the hive consists of a brood body and two medium supers. There is a considerable quantity of stored honey. Which is the best way to use this hive? Is it wise to wait for a swarm, next season, and house it in the cleaned and stocked hive?

2. I have a colony with a brood body and two medium supers. The body has a twist and needs repairs. What is the best way to substitute a new box without irritating the bees? What is the best time here in Bucks County?

Answer: Regarding refilling hives that have died and still have plenty of honey, it is important to know why this colony died. I am assuming that it lost its queen and died and that it is free of disease. If you are sure you are going to be able to catch a swarm, that would be a fine way to fill the hive. A more certain way would be to buy a three pound package of bees from the South or to make a division from another colony. If you have several strong colonies, the division idea is probably best. There are many ways to make a division; a very simple method is to remove the queen and a frame or two of brood with the bees on these frames and place them in your empty hive on the stand where the colony you are dividing sat. The old colony is moved to one side and requeneed immediately. In this way most of the brood is left in the old colony so that it can build up while the new queen is being established. The division picks up most of the field bees and sufficient strength to take care of the eggs being laid by

the old queen. It is possible to work this in other ways such as taking a frame of bees and brood from several colonies and placing them in the empty hive with a new queen in order to make up one colony; they normally will not fight. Or take a frame or two of brood from one colony and put it in an empty hive in the place of a second colony. In this way you rob a little brood from the one colony and a field force from another. In all cases a queen should be added; don't expect the bees to rear their own queen, too much time is lost. This is best done in early May.

As to replacing a damaged hive body, there should be no problem. I would suggest that you move the old one aside and place the new one on the bottom board. Take out one frame at a time and place it in the same position in the new hive body. This will cause very little disturbance. This can be done at any time that the bees are flying, but it is more pleasant if the weather is warm (60° to 70°) and the sun is shining.

If you are not already a member, I would suggest that you join the Bucks County Beekeepers' Association; it meets three or four times a year. I think you would enjoy the group very much. Information can be obtained from The County Agent, Bill Greenawalt, who is located in the Court House Annex in Doylestown.

From Lydia Schweim
Lucan, Minnesota

► I would like some help in using those little wire cages one puts on a patch of emerging bees with a new queen. How long should the queen be left locked up in that cage or does

one pull up one corner of the cage so the queen can get out? If I leave the side combs out so I can move the rest over to get at the queen would that be all right?

Answer: The queen should be out of the cage in about 24 hours. If there is no way for her to get out, just pull up the corner after that, as you mention, so she can come out when she wants to. A better way is to provide the cage before introduction with a plastic or metal cylinder which you can roll up yourself. Put candy in this tube. The tube should be about three inches long and wired to one edge of the cage with a hole cut away to let the end of the tube protrude. If you do not have any regular queen cage candy you can use the inside of an old-fashioned chocolate drop. The bees will eat out the candy and the queen will come out through the tube. It is all right to leave out the side comb or combs to allow easy access to the comb which has the wire introducing cage.

From Jefferson Davis
Kansas City

► Is four feet, center to center, too close to place colonies of bees? If not what is the best distance?

Answer: Four feet, center to center, does not leave much room between. Better measure off two paces from outside to outside of each two colonies. This leaves enough room usually for you to work around your colonies freely. It cuts down drift also so there is less distribution of disease in flight when bees may enter the wrong hive and it results in less loss of new queens in supersedure thereby reducing queenlessness.

A Beginner, A Swarm and An Experience

by Raymond W. Herrick, Jr.

In the spring months of the year almost every beekeeper runs across the opportunity to increase the size of his bee yard when the bees take Mother Nature's way of supply and demand by forming a swarm.

My first encounter with a swarm came upon me quite unexpectedly. While at my place of employment, a friend came up to me and asked me if I wanted a rather large swarm of bees that had landed on a bush about five feet from his house.

As I had never hived a swarm before, I was rather slow in accepting his offer, but accept I did. Here was an opportunity to collect firsthand experience as well as to increase my apiary.

I was about ten miles from home and as is to be expected, I was without a single piece of equipment. I borrowed a bushel basket and an old window screen and set upon the task at hand.

There, upon that bush hung nearly a half bushel of beautiful bees about five feet from the ground. With the exception of about two dozen bees, the swarm was surprisingly quiet.

With a lump in my throat, and no veil on my head, I approached the swarm with the borrowed basket. I placed the basket underneath the swarm of bees and up as near them as I possibly could, and gave the limb a sharp slap with my hand. The bees fell neatly into the basket and I immediately placed the window screen over them. I had captured my first swarm of bees.

The next step on the agenda was to get them home and into a hive. I put them into the trunk of my car with a block under the lid so that there would be plenty of ventilation, and drove the ten miles to my home.

I was out of brood foundation, and in the need of something to put in the hive, I put them in a super with empty frames and on top of this I put a shallow super with ten frames of thin foundation that I use for cut comb honey.

Taking off the outer and inner covers I turned the basket upside down and shook the bees into the shallow super. This was to be a temporary hive because it was too late at night to purchase the foundation.

The following day, my wife and I went to my supplier and got the brood foundation. We put this into the frames and proceeded to the bee yard. We lifted the empty super and put on the super full of foundation, this is to become the brood chamber.

We then attempted to dump the bees into the top of the super as we had done originally, but somehow we missed getting the queen into the hive and in about an hour I had a swarm in an apple tree about fifteen feet from the hive, and about seven feet from the ground. (Our first bad luck.)

Actually this was not bad luck, but another exciting chapter to beekeeping, as my wife had never before seen a swarm of bees. Incidentally, she also has a great interest in bees, and she is always helping me when I have work to do in the bee yard.

Once again I got out the basket and while my wife held the basket under the swarm, I climbed up into the tree. I cut away a few branches and then with a sharp slap on the branch, the bees again landed in the basket.

We then placed a white sheet on the ground in front of the hive, and dumped the bees onto the sheet. I then placed the basket, containing the rest of the bees, on its side next to the sheet, and here is where I learned something about bees that I have never seen in print.

As we were trying to locate the queen among all of those bees, my wife noticed that the bees were actually crawling as a unit towards the basket. Upon closer examination, we discovered Her Highness in the basket and not on the sheet. They had actually told us where she was.

I then proceeded to gently pick her up and we then clipped her wings. She is a beautiful queen, full and nicely shaped in all of her Royal splendor. I put her on the landing platform and gently pushed her into the hive. We picked up the sheet and let some of the bees follow her in. Placing the sheet back onto the ground with the remaining bees still on it. We left the sheet and the basket as they were, and walked away from the bee yard. We returned about an hour later and found that all of the bees had entered the hive. (Success was ours.)

I started immediately to feed them,

using a Boardman feeder and a syrup mixture consisting of two parts sugar to one part water.

One week later we examined this hive and they had already drawn out six of the ten frames and the queen had deposited her eggs. I have now added the second super to build up as the food chamber, as I like the two story hive.

These bees are the same pattern as the Italians that I purchased a year ago, but instead of being yellow with black rings, they are dark gray with black rings. Can anyone tell me what kind of bees they are?

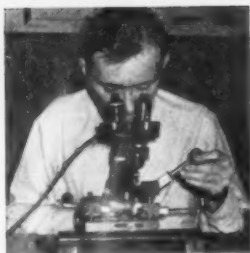
I have since constructed a swarm box which I will give construction details after I have had more opportunity to give it a fair trial. Connecticut

Ancient Ecclesiastical Honey

In ancient Ireland bees were universally kept in straw hives in gardens, but it was the monastic foundations that understood the practice of apiculture. Back in the 8th century the monks of Bangor, Co. Down, raised many colonies of bees known as "beach-ruadh," or the red bees. These swarms were housed within straw skeps set upon stone flags supported by three long upright stones sunk in the ground. This old species of bee, which must have had pronounced red body markings, made great honey combs. In the monastic houses honey was used with all sorts of dishes, meat, fish and bread being dipped in it. It was also the chief ingredient in making mead, a strong drink in those far off days. The making of beeswax candles for burning on the altars was once an industry of Ireland and they were exported to Europe. This wax was considered to be the symbol of the body of the Redeemer derived from His Virgin Mother an account of the supposed virginity of bees and it still retains that beauty even though the biological concept underlying it has been long since rejected. Bees were referred to as Holy Honey Makers and the Book of Rights proclaim that they formed part of the tribute due to kings. We learn that the King of Ulaid was entitled to twenty baskets, or hives of bees. Bees were kept skilfully by the early nuns who understood them and could remove their honey, we are told, without the risk of being stung. Every Irish church has its nest of bees in the wall. So the bee was indeed ecclesiastical in ancient Ireland.

C. P. Robb,
Ireland

- Science and Industry -



SCIENCE EDITOR
DR. WALTER ROTHENBUHLER
Iowa State College,
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ROBERT BANKER
Cannon Falls, Minnesota



WE WANT BETTER QUEENS

by **S. Joaquin Watkins**
President of American Beekeeping Federation

This article is the direct result of a chance conversation with Mr. Harry Rodenberg, Sr., in Billings, Montana last fall. It seems that many beekeepers are becoming more and more concerned about an increasing percentage of substandard queens and queen failure in queens purchased.

The purpose of this article is not to be unduly critical, but to call to the attention of the queen breeders a problem that has seemingly crept up on us. By admitting that we have a problem and by correlating experiences, we can do much to remedy the situation. There is considerable evidence leading to the assumption that some queen breeders ship queens inferior as to stock or performance and do not realize this deficiency.

The writer is well aware that the best way to receive a "sold-out" notice from a queen breeder is to write him a critical letter, no matter how constructive. To me this is poor business because even the best breeders unknowingly ship substandard queens at times.

The failure of queens to come up to expectations can be the result of many factors, some of which are beyond the control of the beekeeper or breeder. To mention a few causes one could include the rearing of queens during inclement weather conditions, poor matings due to immature drones, poor flight conditions, queens held in cages too long by either the shipper or purchaser, damage in transit due to overheating or chilling, weather conditions at the time of introduction, poor introduction practices, and last but not least, poor stock.

The importance of stock cannot be overemphasized. Beyond question, hybridization and selective breeding



have improved strains in our plant and animal stocks. Considerable progress has no doubt been made by the Dadants, Dr. Laidlaw and the USDA in their programs, but they need more and better support from the queen breeders and beekeepers. We are still far away from the perfect bee and also, it is becoming increasingly evident that a strain that proves to be superior for a certain area or conditions in many cases is not adaptable to another region. To evaluate stocks, reports from many parts of the nation are necessary.

By this time most of you are perhaps wondering just what can be done about the situation. A possible solution is this: A central agency, whose reliability and fairness are beyond question, could be selected to receive data from those receiving queens. This data could be the result of a carefully selected questionnaire and when processed serve as a guide to the queen shipper as to how his queens were as to performance. It could be evaluated as to area, time

of receipt of shipment, stock, etc., and if properly supported by a cross section of queen purchasers, be of enormous importance to the industry. The queen breeder (the thought is to make this information available to the particular queen breeder only) would know how he stood in relation to other shippers; also, and this is very important, he would have a chance to detect the reason for a particular lot being given a good or poor rating. It would enable the industry to assemble statistical data in order to correlate the reasons for good or poor queens.

It is entirely possible that we know too little about the factors that are important in the production of satisfactory queens. Beyond question, it is bad luck to receive a shipment of queens from a breeder who has had difficulty making shipping dates due to poor weather conditions, also, queens received during an extremely hot spell of weather seldom come up to standard. The question is just how serious these factors really are in determination of queen quality. Perhaps I am unduly alarmed regarding the queen situation, but to me it appears to be serious. During my first years here in Colorado queen acceptance was high (introduction into full strength colonies) and queen failure (drone layers, etc.), was rare the next spring. Now the reverse is true. In fact, it is so serious that I am considering raising at least part of my own queens.

Now, many of the queen breeders can say that this does not apply to them, but I can name several prominent breeders who would be disagreeably surprised at some of the results received from their queens during the past few years. First, we must

admit that we have the problem and then proceed toward a possible solution. Economic conditions prevailing in our industry are such that we cannot afford to miss any chance to lower our production costs. If properly supported, this plan (no doubt with modifications coming from suggestions), could be invaluable toward getting "higher-producing" queens. To be specific, just what value would this be to the individual queen breeder

or purchaser? To cite a few examples the plan could determine such factors as: Regional differences in performance by certain stocks, susceptibility or resistance to EFB, poor or good wintering qualities as to area, production comparison as between various stocks, temper and ease of handling, etc. Year to year variables such as Nosema prevalence, acceptance percentage, poor matings,

drone layers and the like all could be tabulated. Information of real value over a period of years could be obtained.

To be successful, this or a similar plan would need considerable support from the industry members, both shippers and buyers. This scheme is "thrown-out" as a possible solution to a real problem. If interested, let us have your comments!!!

BETTER HONEY PACKS

by G. O. Mitchell, Jr.
Owens-Illinois Glass Company

In this era of self-service every package must of necessity be a "sales package." By this is meant a package that does a selling job on its own, not merely carries your product to the market place.

Because of the importance of the sales package, which can actually make or break a product, the honey packer, or any other packer for that matter, should sit down at regular intervals with his suppliers and with his package designer, if he has one, and evaluate and reevaluate the packages he sends to market. Are they timely and up-to-date? A package that did a good selling job a few years ago may be hopelessly outmoded today. How do they compare with the packages used by your competition? It is possible that your competition may be cutting into your sales, not with a better product, but through use of more effective sales packages.

Almost everyone has seen shoppers in a super market pick up packages and turn them around from side to side, examining them before buying. Many times it is the recipe on the label or the sales message or some other sales-plus that causes them to select one package and one brand from all the others on the shelf. Perhaps the shopper actually intended to buy another brand when she came into the store, but something in a competitive package aroused her interest and caused her to buy it instead.

In reviewing and reevaluating his packages, each packer should ask himself some honest questions and provide himself with some honest answers. Here are just a few of the questions that might be asked:

1. Does your package carry a selling message—a word or phrase such as "Delightful Spread on



Bread," or "Fine on Biscuits?" When you use such a selling message on your package does it stand out? Can the shopper instantly see and grasp the meaning of your message?

Sometimes a label illustration in full color showing waffles smothered in honey or honey spread on biscuits, bread or grapefruit will do the same job as a selling message and help to increase sales of the product. In some cases the combination of a selling message and an illustration in color proves most effective of all.

Whether the honey packer utilizes selling messages or sales illustrations or both, it should be remembered that in addition to the greater impact of his product upon the consumer he is making available to himself tie-in displays with the makers of ready-to-make biscuits, ready-made pancake mixes and bread products, to mention only a few.

2. Have you taken advantage of the merchandising possibilities of

multiple packaging? There seems to be little argument that multiple packaging and, of course, multiple pricing, will sell more merchandise. Multiple packaging fulfills the old adage that "the more of a product there is in the home, the more will be consumed."

Another means of reaching the same objective is through greater sales emphasis upon large packages—the "large economy size" or the "family size" package or the "king size" container. Almost everyone likes a bargain, and the multiple package and the "large economy size" container help to increase volume sales by catering to that impulse.

4. Does your honey package have convenience features which make it attractive to both consumers and retailers? Other factors, such as quality of the product, being equal, the package that is convenient for the homemaker to grip and to pour from and for the retailer to display on his shelves, is the package most likely to be selected. Women like a package that is easy for feminine hands to hold, one that opens and closes without difficulty and pours smoothly without mess. They like a package with a wide base and a low center of gravity, so that it will not tip over readily. This last named advantage is particularly important, since the trend is to produce packages that can be placed right on the table to encourage greater consumption of the product.

From the retailer's standpoint, a package should be compact in shape so as not to take up unnecessary shelf space. It should have good display frontage, so that shoppers can

(Turn The Page)

identify the product at a glance. The popular built-in stacking feature in glass containers enables the retailer to stack containers easily, neatly and safely.

The package which has reuse value in the home encourages the consumer to buy and buy again. One possibility for a reuse package is the square jar which many honey packers have used. It can be promoted as a canister set in the home for tea, coffee, cocoa or sugar. Perhaps offering a set of decals on a self-liquidating premium basis would make the jar even more attractive for that purpose.

5. Finally, the closure offers great possibilities and great opportunities in producing a package that consumers will "buy" rather than "accept." The closure is an important sales area, and it may include the

name of the product, the brand, and a brief sales message. Since it is not always possible to guarantee that your product will occupy the top shelf, the closure may be called upon to perform a double selling job. It also has an important selling function in the home, where the housewife sees it every time she opens the package. Enthusiasm for doing a better selling job with the closure should not be carried to the extent of eliminating ample price marking space. Lack of adequate price marking space on the cap is more than a matter of mere annoyance to the retail food merchant. It is a matter of time and money. The presence or absence of this space can sometimes be the difference between acceptance or rejection of a package on the part of the retailer.

Horguelin Thesis On Honey Marketing

Our readers will perhaps recall the trip of Paul Horguelin of France to this country in 1957. He was at the tri-state meeting in Hamilton and spoke briefly there.

His son, Marc J. Horguelin has been a student at the University of Montreal and has just prepared a thesis for his Master's Degree in the College of Commerce at the University. We are privileged to have seen a copy; some 85 typewritten pages on "Honey Marketing in Canada." We can give but a short review.

While farmers' income in Canada has increased from 1938 to 1954, beekeepers' income has steadily dropped, even with an increase in wholesale price of honey from 8c in 1938 to 18c in 1955; caused by shrinking colony averages, due to changing agriculture.

There are 15,000 producers of honey in Canada with provinces ranking in order; Ont. 49%, Quebec 16%, Manitoba 12%, Alberta 11%, Sask. 7%, B. Col. 3½% and Maritime Provinces 1½%. In pounds produced, Ontario ranks first followed by Manitoba, Alberta, Quebec, Sask., B. Col., and Maritimes.

There are four large provincial cooperatives and 18 other processing plants for packing and distributing Canadian honey. The prairie prov-

inces consume 5 to 6 pounds of honey a year per adult and 4.4 lbs. for each child, while the overall consumption for Canada is 2 lbs.; still more per capita than in the U. S. In the western provinces nearly 50 per cent of the honey is marketed in original granulated form, while in the more populated eastern Canadian provinces the bulk is processed and sold as liquid honey.

There is practically no exportation of honey now while at one time ten million pounds were exported. Now the imports are increasing, so that there has been a rather steady consumption of honey at quite a steady price.

Mr. Horguelin finds consumer consumption directly affected by consumer revenues, and also to a large extent by the amount of publicity and advertising done on this farm product. The Canadian Association, provincial associations, honey packers and federal help in the way of a duty on honey containers have all helped. Just now the government is also contributing to the advertising budget in an effort to increasing the returns to beekeepers so that pollination may not suffer.

The thesis warrants more general distribution than is ordinarily given to a college thesis. We compliment Mr. Marc J. Horguelin on his work.

Retirement of James I. Hambleton

May 16th, Jim Hambleton retired from government service as head of the Division of Bee Culture and Biological Control, at Beltsville, Maryland. He will be missed in this industry and it will be hard to choose a new man to take his position. He became well known to many beekeepers and leaders over the years and his services to the industry were many and varied. His field stations, with well staffed scientists, have carried out problems that have been of importance to beekeeping in all parts of the country. We will miss him in his retirement and we hope that we will see him often among us.

Parker Retires in Kansas



On July first, Dr. R. L. Parker retires from his duties at Kansas State College and with the Kansas Entomological Commission. He has been in the service of the beekeepers of Kansas and elsewhere for thirty three years and is a familiar figure in all state and national affairs. Sorry you have to step out, Ralph.

Roger B. Boren will become state apiarist. He came to Kansas in September 1957 to assist Dr. Parker. He is a graduate of Mississippi State. Boren will also be the editor of the "Kansas Beekeeper."



Artist Myrri H. Krieger, Cincinnati, Ohio, completing her painting of honeybees, flowers, and hives for Edwin J. Anderson of Penn State.

Painting With Beeswax

by George A. Van Horn

Painting with beeswax, an art form found in ancient Egyptian tombs, has been used on the campus of the Pennsylvania State University. Artist Myrri H. Krieger of Cincinnati, Ohio, left in picture, completes a painting of a honeybee, flowers, and beehives for Edwin J. Anderson, right, of the Agricultural Experiment Station at Penn State.

Mrs. Krieger also completed a 9 foot by 4½ foot beeswax mural, using Professor Anderson's laboratory as her studio. Anderson and his assistant, Robert Hoover, of Morrisdale, Pa., built an electrically heated grill for Mrs. Krieger to use in blending wax and paints.

Use of beeswax in modern paintings was revived in the United States about 20 years ago. This is another market, although a small one, for

beeswax. The market for beeswax is very steady. It is used in 256 commercial products, from ceramics to metals.

Beeswax paintings can be rubbed with a soft cloth to a brilliant luster, Mrs. Krieger points out. She claims that many beeswax paintings found in Egyptian tombs show a rich, jewel-like finish—almost like fresh paint.

Many different formulas and processes are used in beeswax painting. The technique is known as encaustic painting, which means "burning in." A blowtorch or an infra-red lamp is used to fuse powdered tempera colors or oil paints with the wax.

An infra-red lamp produces melting and bubbly effects giving interesting texture to the design. A blowtorch fuses faster with different effects.

"This beeswax process gives me a flowing technique which provides the effect I want," Mrs. Krieger states. "If another art medium will express better what you want to say, then you are in the wrong medium," she adds.

Wax and paint are built up, layer upon layer, and can be scraped off with a putty knife to suit the artist's desires. The designs can be dabbed on, slapped on, or brushed on.

Bleached beeswax is used in the process. The yellow wax, like that removed from honey, would discolor brilliant effects.

Historians say that Julius Caesar paid 80 talents or \$350,000 for an encaustic painting to use as a temple offering. Beeswax paintings had been found before 465 B.C.

Pennsylvania

Nitrous Oxide and Re-orientation

Nitrous oxide anesthesia does not encourage re-orientation of honey bees. C. R. Ribbands (Rothamsted Exp. Sta., Harpenden, Eng.). *Bee World* 35, 91-5(1954).

Neither N₂O or "ammonium nitrate fumes" had any effect on the re-orientation of bees. After CO₂ anesthesia more bees returned to their original home than was the case when no treatment was given.

F. B. Wells

Fumidil B and Nosema Control In Wintering Colonies

Thos. A. Gochnauer (Univ. of Minnesota, St. Paul 1) *Paper No.*

3759, *Sci. J. Service, Minnesota Agr. Exp. Sta.*;—Under test conditions in inoculated two-pound package colonies, a level of 40 mg. fumagillin (I) activity/colony appears to give good control of Nosema disease, and the I activity appears not to be impaired by the presence of Na sulfathiazole.

Digest by
F. B. Wells

New Honey House for the University of Manitoba

The Department of Entomology at the University of Manitoba has been very interested over the years in

promoting beekeeping and assisting beekeepers through experimentation and education. Professor Mitchener who for many years was head of the Entomology Department devoted much of his time and effort toward beekeeping and Dr. Thorsteinson who is now head of the Department is doing likewise. With construction of a building to house beekeeping soon to get underway it is wonderful asset not only to the University but to the beekeepers of Manitoba. With this building it is anticipated that a great deal of equipment especially for the handling of honey can be put on display for beekeepers to see first hand. D. R. Robertson

MEETINGS



HERE and THERE



Picture of some of the beekeepers in attendance at one of the Short Courses at Penn. State.

Penn. State Short Course, August 18 - 23

Penn. State Short Course, Aug. 18 - 23

The Penn. State Beekeeping Short Course is held during August each summer. This year it will begin Aug. 18th and end Aug. 23rd. This course is unusual in that it extends over a period of five days and includes three evenings of that week.

Each morning is taken up with lectures on such subjects as seasonal management, disease control, marketing honey, and a number of others. Each afternoon is devoted to demonstrations in the apiaries or in the laboratory.

Penn. State is unusually well equipped for demonstrations since the University owns six apiaries and produces both comb and extracted honey. Queen rearing is carried out in several of the apiaries. In the laboratory are three sets of equipment for extracting honey, each for a different sized operation. The laboratory equipment includes also two new type tanks

for heating, straining, and bottling honey. Instruments for artificially inseminating queens as well as a number of other items of interest are to be found in the laboratory and bee yards.

There are generally three speakers for the course, an invited speaker from another state and the two from Pennsylvania, E. J. Anderson and W. W. Clarke. Beekeepers from nearly all the northeastern states have been attending this course as well as a few from foreign countries.

The cost for registration is \$7.25 for beekeepers from Pennsylvania and \$12.25 for those from other states. To register, write Dr. D. R. McClay, Director of Short Courses, 211 Armsby Hall, University Park (State College) Penna. He will send you a program and other information.

Edwin J. Anderson
State College, Pa.

Iowa Summer Meeting, Council Bluffs, July 12th

Don't forget the Iowa Summer Meeting under the auspices of the Root Company on Saturday, July 12th. This meeting is being sponsored by the Iowa-Nebraska Associations and all beekeepers are invited to bring their baskets and enjoy this day of fellowship and information.

It will start off at 10:00 o'clock with registration and coffee at the A. I. Root Company Plant. At 11:00 o'clock, there will be bee demonstrations with questions and answers. A potluck picnic dinner will be had at Kiwanis Picnic Grounds in Council Bluffs. We will serve free coffee and ice cream. At 1:30, there will be a good program by nationally known speakers.

F. L. Swanson

Northwestern Association (Pa.) Titusville, July 29th

The Northwestern Pennsylvania Association will have its annual picnic at Burgess Park, Titusville, Tuesday, July 29th, from 10 a.m. to 6 p.m. There will be speakers from out of state. Take a tour of Drake's oil well which was founded in 1859. Those coming a distance will be able to visit Tionesta Dam. At the meeting there will be contests and prizes for young and old. Be sure to bring a well-filled picnic basket. Come and enjoy this event.

Alice Reynolds, Sec. Crawford County

Apicultural Society of Rhode Island East Farm, July 20th and Bristol Aug. 17th

The Apicultural Society of Rhode Island will hold its meeting at EAST FARM, University of Rhode Island on July 20th at 2 p.m. A speaking program is being arranged and an inspection of the bee yards will be made. Beekeepers within traveling distance of the University are cordially invited to attend this meeting. If rainy weather meeting will not be held.

The Society will be the guest of Mrs. George A. Lyon at her Blithewold Estate, Ferry Hill Road, Bristol on August 17th. There are 15 acres of rare shrubs and trees including many honey plants growing at Blithewold. The various gardens are very beautiful in August. Beekeepers within traveling distance of Rhode Island are cordially invited to attend this meeting. If rainy weather meeting will be cancelled.
Wulf Kroekel, Corres. Sec.

Midwestern Missouri, Raytown, July 13

The Midwestern Association will meet at the home of Mr. Frank Ellis, 5320 Maywood, Raytown, Missouri, at 2:30 p.m. Sunday, July 13. Topics for discussion are "Removing Supers" and "Extracting." Refreshments will be served. Everybody welcome. Carroll L. Barrett, Secretary

Illinois State Summer Meeting Belleville, July 19 - 20

The summer meeting of the Illinois Association will be at Belleville, at the Turkey Hill Grange, July 19th and 20th. It is sponsored by the St. Clair Association. Following is the program:

- Saturday, July 19th
- 10:00 A.M.—DST—Registration, Mr. R. R. Hyde.
- 11:00 A.M.—Apiary inspections, Mr. C. E. Killion, chief apiary inspector of Illinois.
- 11:30 A.M.—To be announced, Mr. Hoyt Taylor, secretary, Ill. State Beekeepers Ass'n.
- 12:00 A.M.—Lunch, light lunch and drinks can be purchased in the basement.
- 1:30 P.M.—To be announced, Mr. John W. Buchanan, sales mgr., A. I. Root Co., Medina, Ohio.
- 2:00 P.M.—Royal Jelly, Mr. Leslie Little, state apiarist of Tenn., Shelbyville, Tenn.
- 2:30 P.M.—To be announced, Mr. Walter T. Kelley, W. T. Kelley Co., Clarkson, Ky.
- 3:00 P.M.—Demonstrations, (outside in the shade), Mr. George L. Hankammer, pres., St. Clair Beekeepers Association, Belleville, Ill.
- 4:30 P.M.—Midnites, Mr. M. G. Dadant, Dadant & Sons, Hamilton, Ill.
- 5:00 P.M.—Recent Observations, Dr. Milum, apiculturist, University of Illinois.

5:30 P.M.—Trace Elements, Dr. E. R. Spencer, PHD botanist & plant pathologist, Lebanon, Ill.

6:00 P.M.—Legal Aspects of Beekeeping, Mr. Geo. C. Nagel, counselor in advertising, St. Louis.

6:30 P.M.—Adjournment for Banquet.

7:00 P.M.—Banquet. Mr. Geo. C. Nagel, St. Louis, MC. The meal served at the banquet will be a fried chicken dinner, prepared and served by the ladies of the Turkey Hill Grange. Entertainment will be a girls quartet and two films, Bees For Hire and Bee Breeding.

Reservations for the banquet cannot be accepted later than July 15th. Reservations should be mailed to Mr. R. R. HYDE, 1414 Prairie Ave., Belleville, Ill., together with check or money order for \$2.50 along with the registration slip.

SUNDAY, JULY 20th 1958

We will not be at Turkey Hill Grange on this day. The registration slip will decide as to what we will do on Sunday.

The conducted tour will be very interesting as Scott Air Force Base is an extremely interesting tour.

The Protestant church service will be for beekeepers. The sermon will be on bees and honey in Biblical times.

Other entertainment will be a visit to a local bee yard.

Valuable prizes and gifts will be given at the banquet, Saturday night.

Fourth Annual Meeting of the Eastern Apicultural Society, University of Massachusetts, Amherst Aug. 7-8-9

REGISTRATION:

It is our aim to anticipate your every need while you enjoy the Conference. Upon arrival, go directly to Arnold House where you will be registered. Here you will be assigned rooms and provided with information of value to you in your visit. It would be helpful if those out of state and desiring housing space in dormitories should send their registration of \$4.00 well in advance so that their quarters will be ready for them. Mail checks to F. R. Shaw, Fernald Hall, University of Massachusetts, Amherst, Massachusetts. You will receive credit for your advance payment and will greatly expedite prompt service to yourself.

EXPENSES:

Assuming that you arrive at the Conference on Thursday afternoon and stay through Saturday night the schedule below would cover every

known expense.

Registration fee—\$4.00
Thursday dinner—\$1.50
Thursday lodging—\$2.50
Friday morning breakfast—\$.75
Friday lunch—\$1.25
Friday dinner—\$1.50
Friday lodging—\$2.50
Saturday morning breakfast—\$.75
Saturday lunch—\$1.25
Annual banquet—\$2.50
Saturday lodging—\$2.50
TOTAL (each person)—\$21.00.

Where can you get so much for so little? You just can't afford to stay at home.

PROGRAM OF THE 1958 CONFERENCE

Thursday, August 7, 1958—P.M.

- 2:00—Registration, Arnold House.
3:00-5:30—Guided tour of campus. Each trip will require about 45 minutes and will leave from Arnold House.
5:30-6:30—Dinner at University Commons. Try to be there by 6:00 P.M. Late comers can get light lunch at Student Union or at restaurants downtown.
7:00—Meeting of Executive Board, Arnold House.

8:00—Special movies, Stockbridge Hall.

Friday, August 8, 1958—A.M.

- 7:00-8:00—Breakfast, University Commons
8:00-9:00—Registration, Arnold House and Stockbridge Hall
9:00—Meeting called to order, A. J. Baptiste, president EAS
9:05—Invocation, Dr. Carl Webb
9:10—Welcome, Dean D. H. Sieling
9:20—Welcome, Dr. John Lilly, head Dept. Ent. and Plant Pathology, University of Massachusetts
9:30—Keynote Address, Arthur Dean, past president Eastern Apicultural Society, Pittsburgh, Pa.
10:00—Nectar Secretion, Dr. George Shuel, Ontario Agric. College, Guelph, Ontario, Canada
10:30—Recent Developments in Bee Behavior, Dr. Cecil Jamieson, Div. Beekeeping, Canadian Dept. Agri., Ottawa, Canada

11:00—Questions and answers; introduction of visitors

11:15—Conference photograph, steps of Stockbridge Hall

11:45—Lunch, University Commons
Friday, August 8, 1958—P.M.

1:00—Film: Honeybees and Pollination, Dr. Cecil Jamieson, Canadian Department of Agriculture

(Turn the page)

- 1:30—Panel Discussion, Needed Developments in Beekeeping—W. K. Davis, Providence, R. I., chairman
1. As Seen by the Extension Specialist—W. W. Clarke, Penn. State University
 2. As Seen by the Teacher of Beekeeping—Dr. E. J. Anderson, Penn. State University
 3. As Seen by the Beekeeper—P. J. Hewitt, Jr., Litchfield, Conn.
 4. As Seen by the Research Specialist—J. I. Hambleton, U.S.D.A.
 5. As Seen by Manufacturers of Bee Supplies—John Buchanan, Medina, Ohio
- 3:00—Special Program for Ladies, Student Union Building—Mrs. M. L. Yates, Hartford, Conn., chairman
- 3:00—Production and Marketing of Cut Comb Honey—Charles Mraz, Middlebury, Vermont
- 3:30—Processing of Honey for Market—Dr. E. J. Dyce, Cornell University
- 4:00—Clinic for Beekeepers—Gaston LeVitre, Woonsocket, R. I., chairman
- 5:30—Dinner, University Commons
- 7:00—Delegates' Meeting, Arnold House
- 8:00—The FBI in Action, Robert W. Clark, special agent FBI, Stockbridge Hall
- Saturday, August 9, 1958—A.M.*
- 7:00-8:00—Breakfast, Dining Commons—Special tables for inspectors, educators, honey packers and representatives of manufacturers. Hosts for special tables and committee chairmen to make reports at 11:00 A.M. Inspectors—Milo Bacon, chief inspector apiaries, Boston, Mass. Packers—Ralph Gamber, Lancaster, Pa. Representative of Mfgs., F. W. Gravely, New York City. Educators—Dr. Roger Morse, Cornell University.
- 8:00—Registration; Examination of Honey Show—Stockbridge Hall
- 8:30—Recent Investigation on the Production and Uses of Royal Jelly—Dr. George Shuel
- 9:00—Current Research in Beekeeping by the U.S.D.A.—J. I. Hambleton
- 9:30—The Visual System of the Honey Bee—Dr. T. H. Goldsmith, Harvard University
- 10:00—Bee Venom, Dr. Herman Sander, Manchester, New Hampshire
- 10:30—Honey Show Report, Dr. George Abrams, University of Maryland

- 11:00—Reports of committee chairmen
- 11:30—Introduction of visitors
- 11:45—Lunch at University Commons
- Saturday, August 9, 1958—P.M.*
- 1:00—Some Aspects of European Beekeeping, J. I. Hambleton
- 1:45—Recent Developments in the Use of Chemicals to Control Bee Diseases—Dr. Cecil Jamieson
- 2:30—Management of Bees for Fruit Pollination—Donald Green, Mgr. Chazy Orchards, Chazy, N. Y., Div. of Beekeeping, Canadian Dept. of Agriculture, Ottawa, Canada
- 3:00—Wintering Bees in the North, Dr. Roger Morse, Cornell Univ.
- 3:00—Questions and Answers
- 4:00—Business Meeting
- 4:30—Exhibit of Beekeeping Equipment—College Apiary, P. J. Hewitt in charge
- 6:00—Annual Banquet, Student Union Building. Invocation—Reverend David Power, Catholic Chaplain, Univ. of Mass. Toastmaster, A. J. Jones, Malden, Mass. Guest Speaker—Shannon McCune, Provost University of Massachusetts.

Pennsylvania Summer Meeting, Valley Forge State Park, August 16th

The Pennsylvania State Association summer meeting and picnic will be at Valley Forge State Park, August 16th. Several good speakers will be present to discuss timely subjects. The 1958 Honey Queen will also be selected and crowned. Bring your own basket of food. Beverage will be furnished by our host, the Montgomery Association.

A. R. Dean, Secretary

Minnesota Summer Meeting Detroit Lakes, July 25th and 26th

Minnesota Beekeepers' Association Summer meeting is to be held July 25th and 26th at Detroit Lakes.

George McReynolds
Secretary

Washington State, Lake Tipsoo, August 2nd

The Washington State Association will hold its annual potluck picnic at Lake Tipsoo on Saturday, August 2, weather and snow conditions permitting. If conditions are unfavorable, the picnic will be held at Morse Creek, about five miles east of Lake Tipsoo.

Mrs. E. B. Purchase
Secretary

Middlesex County (Mass.) Newtonville July Meeting

The July meeting of the Middlesex County (Mass.) Association will be at the home of Mr. and Mrs. Paul Bilezikian, Newtonville.

At the June meeting the newly elected officers were all present: John H. Furber, pres., Asa Olsen, v. pres., Douglass G. Pamplin, rec. sec., Lolita Pamplin, corres. sec., Henry G. Neunzer, Delegate.

Lolita Pamplin,
Corres. Sec.

Brandon (Manitoba) Field Day, July 11

A beekeepers' field day will be held at the Brandon Experimental Farm on Friday, July 11th. Mr. J. C. M. L'Arrivee and Mrs. John Geiger, Apiculturists at the Experimental Farm, are arranging an outstanding program to attract beekeepers from all points in Manitoba. A group of beekeepers from Saskatchewan are expected to be in attendance. Beekeepers will be interested in seeing first hand experimental work in the field of queen breeding and disease and management. Of special interest to many beekeepers will be the complete compact unit for heating and straining honey as manufactured by W. J. Keep, West Brant Apiary Supplies, Brantford, Ontario. The Manitoba Beekeepers' Association will hold their annual picnic in conjunction with the field day.

D. R. Robertson,
Provincial Apiarist

Kansas State Annual, October 4th, Hillsboro

This annual meeting will be on Saturday, October 4, at Hillsboro. Hillsboro is ten miles west of Marion in Marion County, on U. S. Highway 56 and Kansas Highway 15.

The meeting will be held in the city building. Kitchen and dining room facilities are available which will serve the needs of the meeting very well. The meeting room can be darkened to facilitate the showing of black and white or color transparencies and slides.

The program will feature "Kansas Honey Houses." We wish to show pictures of Kansas honey houses and honey packing equipment as a part of the program. Whether you operate ten or five hundred colonies, please take pictures, preferably 35 mm transparency slides (2"x2" when mounted) of your building, extracting equipment and honey handling

arrangement, to be shown at this meeting.
E. P. Barkman,
President

SUMMER MEETING

Ohio State Beekeepers' Association
Hale's Hall, Fairgrounds, Medina, O.
July 26th and 27th

Theme "Youth in Beekeeping"

A.M. DST

10:00 Registration and gathering
at Hale's Hall—H. R. Swisher and
Fred Opplinger

10-12 Tour the Root Co. plant

12:00 Basket picnic lunch, Hale's
Hall

P.M.

1:00 Smoker contest. Juveniles
and adults (everybody is urged to
bring their smoker)—Fred Op-
plinger in charge

1:30 Welcome—Pres. H. Vanden-
berg

1:45 Advice for a young man plan-
ning a lifetime with bees—Geo.
Rehman

2:15 Some common errors made by
the beekeeper—Chas. Reese, Ex-
tension Apiarist

2:45 Interesting experiences in bee-
keeping—Seymour Bailey, State
Apiarist and panel

3:15 Demonstrations with actual
hives of bees for the 4-H boys and
girls. Hiving a swarm; Installing
a 3-pound package; Manipulating
a colony. In charge will be John
Root, Managing Editor of Glean-
ings assisted by 4-H advisors

4:00 Films: County Agents; Bees
for Hire

4:30 Questions and Answers—Jack
Deyell in charge

5-7 Visiting, lounging, refresh for
banquet

7:00 Banquet at Hale's Hall

M.C.—Alan Root

Introductions, Film, Guest speaker,
James D. Wells, executive assistant
to the director of Ohio Dept. Nat-
ural Resources; Subject "A Broad
Look at Ohio"

July 27

Hale's Hall will be open at 10 A.M.
for visiting and lounging

P.M.

1:00 Frame nailing contest

1:30 Building up colonies for honey-
flow. Bee stings less painful—
Geo. Rehman

2:00 Honey, the sweet nature makes
ready to eat—Dr. W. Dunham,
Ohio State University

2:45 Let's quiz the experts, audience
participating. Panel, Charles
Reese, Seymour Bailey, Jack Dey-

ell, Dr. Dunham

3:30 Films

4:00 Demonstrations and finals in
frame nailing contest

4:30 Drawings for free prizes—H.

R. Swisher in charge

Auxiliary Program

Ladies bring your original honey
recipe. Bring recipe prepared and
a written copy of recipe, to be dis-
played and judged for prize at the
meeting, Saturday, July 26th, 2:00
P.M. Speaker, Mrs. Ernest D. Gil-
bert—"Homemaking in Japan."

North Carolina State

August 15th and 16th, Cullowhee

The North Carolina State Associa-
tion will stage their annual summer
meeting at Western Carolina College
at Cullowhee near the Great Smokies.
There will be plenty of rooms avail-
able with meals at the college cafe-
teria. This is an occasion that will
bring pleasure and learning to bee-
keepers in the great setting of this
region. Be sure to set aside these
two days and make a vacation of the
meeting.

S. C. Squires

Secretary

North Missouri Meeting

All day meeting at the home of
Edith Neidholdt at Brunswick, Mis-
souri with a catfish fry dinner. Plan
to make a day of it with the family.
Best guess is that Mrs. Neidholdt
will also tell how to catch the big
ones.

Hats Off to Cook-DuPage

At the May meeting of the Cook-
DuPage Association at John Lis'
place, Des Plaines, Ill., there were
over 200 people in attendance. How
come? The answer is easy. Folks
can't stay away. First place it was
a Sunday meeting at a real, honest-
to-goodness bee outfit, the 1400 col-
ony set-up of John Lis. Also all
members of the association have some
kind of a job in association affairs
and they love it. Imagine—they have
a committee to choose a theme song
for meetings. They have contests
for young folks. They have continu-
ing projects; raffles for funds; com-
mittees for this and that. It's an
inspiration! And what a "feed!"
Groaning tables after the meeting;
not between spells and not before.
But after the meeting when everyone
begins to think about supper. To
sum it up, it's just the kind of a
meeting that draws a crowd and
holds it. Some of the rest of you try
it out sometime.

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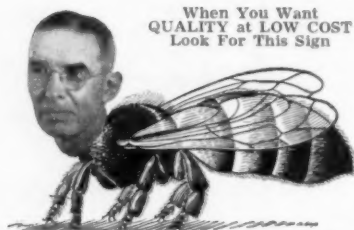
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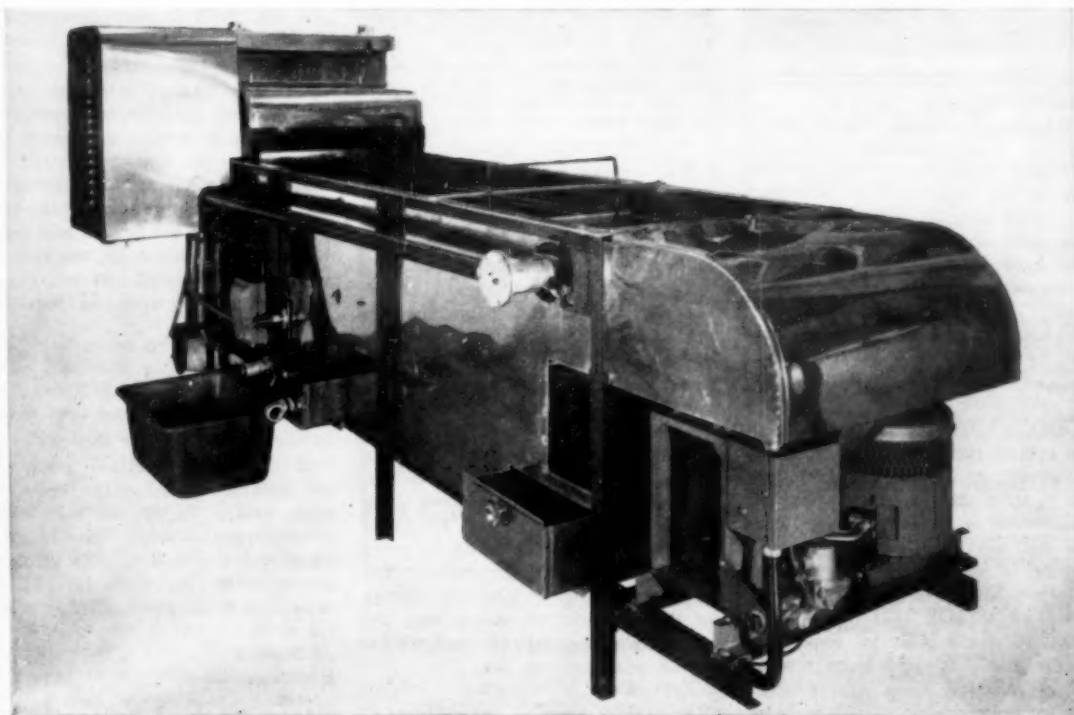


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Sometimes there are more items than can be used in one issue (as for this month). Those left over will be considered the following month.

Number One

It's Easy to Close the Holes and Cracks

If you have moved bees for the flow or for pollination or whatever, you have probably been plagued by bees that emerge from cracks or holes between the hive parts (unless of course you have all new equipment). Sometimes the top edges of supers warp or break slightly and also the bees love to chew away small holes in the cracks between bodies.

I have tried all sorts of remedies for this and finally came upon a solution that works well for me. Simply get a roll of 2" masking tape, unroll a strip and press it over the crack. The hive must be dry as it does not work well in the rain. No wetting of the tape is necessary. Simply press it on. Once stuck I have had it stay that way for a year. It works well on upper entrances too. If you have trouble finding masking tape, try a store that sells automobile supplies. Any service station should know where there is one. They use it to cover the chrome on a car when spray painting.

James Wilkin,
Gardener, New York

Number Two

Value of Burr Comb

So often beekeepers have the habit of scraping off the burr comb, especially on the tops of the frames. Last summer, thinking that the liquid appearing in the depressions in burr comb was honey, I tasted it and found it to be clear water. Alas, in my zeal, I had removed the bees'

air conditioning system, and at the same time, I believe, their future bridge between the lower and upper bodies, especially important to the cluster when it moves upward in cold weather. The previous winter I lost almost the whole of my cluster because it had failed to cross the barrier. Now I'm not so house-proud for the bees.

Cath R. Brindley
State College, Pa.

Number Three

Low Cost Increase

We replace queens every two years. When the young replacement queens arrive we set the old queen and a couple of combs of brood from each colony to be requeened in a hive body on a bottomboard at the rear of the parent. Enough bees are shaken into this new hive to form a good nuc. The old queen is never kept in the parent unless the colony has average or better population. If the new queen is not successfully introduced the nuc can then be reunited with the parent colony. If the nucs are maintained long enough they will often supersede the old queens or they may be given young queens or ripe cells. The nucs can be built up into full colonies by the end of the season and the next spring they may be used for increase or to replace loss.

Ronald Wulff
Charles City, Iowa

Number Four

Quick and Safe Steam Heat for Knives and Wax Melting

Connect a quarter inch or larger steam hose to either a hot or cold faucet. The plumber has adapters for this. Then wrap about twenty feet of a quarter or three eighths copper tubing around a four or five inch can to form a coil. Let the two ends extend about a foot or more out from the coil. Attach a water inlet at the bottom of the coil and another hose at the top for steam with this hose fastened to the uncapping knife. The coil is set di-

rectly in the flame of a burner. Turn the water on first and then light the burner. It may take some adjustment to balance the water and the flame to get the right amount of steam. The hose, the adapters and the burner cost less than \$8.00. The water supply is continuous and you get steam in about two minutes. There is no pressure vessel to watch and no refilling.

To melt wax make a flat copper coil of the same size used to create steam and attach to the steam hose after removing the knife. Drop this into the wax can, add a little water and dump the cappings or other wax on top. This is safe and quick. By making a spout on the can the wax may be floated out by turning on enough water so no steam is developed.

Stanley Neel
Mangum, Oklahoma

Number Five

Salvage Those Sections

If you break sections when you are folding them, don't throw the parts away. Rejoin the pieces with Scotch tape. When the comb is completed the tape may be removed. There is no indication left of the repair such as gummed tape would leave.

Al Bzenko
Rochester, Mich.

Number Six

Catching That Swarm

Have you ever noticed that a cloud drifting over the sun will often cause bees to rush back to the hive? This tendency may be used to stop an absconding swarm. Dust, grass, straw, leaves, or small debris, when thrown through the flying bees, tends to bring them down. On one occasion I threw my hat among them repeatedly until I lost it. Then I did the same with my jacket. My shirt followed and finally I lost that as I followed the bees. For that swarm I was kicking up a storm! Finally a handful of leaves led them to

cluster on a small cedar tree. So just remember to "kick up a storm" and the bees will come down. A mirror will do it too if it is handy. Harry T. Starnes
Crawfordsville, Indiana

Number Seven

Carbolic Cloth

Here is a way to make a carbolic cloth that will stay put on the hive on a windy day. Make the cloth the size of the hive top but with an inch hem on two sides. Then get lead covered electric wire and cut two lengths of it to fit into the hems of the cloth. Then let the wind blow. Ernest Goward
Mansfield
Notts, England

For the Discomfort of Bee Stings

I have found that plain household bleach (Clorox or Purex) is as quickly effective as anything I have ever used. Simply apply a drop or two directly on the wound after the stinger has been removed. My husband simply ignores stings but I am "sissy" enough to want a counter-irritant on mine.

Mrs. Harry Johnson
Rich Hill, Missouri

How to Dispose of Laying Workers

The simplest and easiest way I have found to get rid of a laying worker that has taken over the brood chamber is to take out two combs at a time, carry them about fifty feet away and shake all the bees off by knocking them together. Then take them back and remove two more for the same treatment. Do this with all the combs. By the time you get through, most of the bees will have returned to the colony. I then introduce a new queen. In some cases it may be more sure to introduce the queen a day or two later. However I have had good luck introducing a caged queen in the usual manner right away. It takes a day or two before the bees are able to release her.

Alvin Rappe
Dover, Arkansas

Confine The Drones

If you manage just a few colonies and try to keep them of a pure strain, you may have difficulty with queens mating if you add bees caught from unknown sources to that one location bee yard. Every operator should learn to raise queens, not commercially but just to prove he can. By placing a queen excluder between the

bottom board and the hive body, you are able to confine the undesirable drones during that period when queens will be on the wing. Certainly for just a few colonies the commercial queen breeder is the man to supply your queens, but I can't resist the temptation to secure a good queen and then raise some daughter queens from her. To me it is the essence of the beekeeping hobby.

Keith Hudson
Fairbury, Nebraska

Come on, you UNDERCURRENTERS

Since there were too few answers to this question proposed for Undercurrent this month, let's collect a few more and add to what we have for the August issue. The question was "What Do You Consider the Most Important Advance in Beekeeping in the Last Twenty Five Years?" Such a question should bring loads of answers. Thanks to you folks who did send in your contributions. We will use them as above.

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The Scramble — — A Contest

Editor - Pat Diehnelt



JUNE SCRAMBLE

Floyd (Prof.) Paddock

What's happened? As the issue is getting under way there have been only two answers about the identity of the June Scramble featuring Prof. Paddock and one of them is wrong! So you fans will have to do better with the present puzzle. Don't let me down or I'll go into a corner and cry.

Floyd Paddock has spread his genial service to beekeepers all over the country. As head of inspection in Iowa and teacher and extension apiarist he has a long period of good work and service. He is himself a beekeeper and so closely familiar with the problems of the industry.

May Winner for Jim Newton

Yes, the May Winner—just one. Again it is Alymer J. Jones of Malden, Mass. All



he says is that the mixed up character is Jim Newton, Baton Rouge, La. But he declares that Jim's picture was a "toughie and I had to go back to about 1952 to find a picture of him. Maybe you now owe me a lifetime supply of ABJ. Nevermind, I can't get enough of them."—Lewton Perry, Cofield, North Carolina, claims that this Scramble is of E. W. Burleson (wrong) but we'll let Jim and Ed laugh about their resemblance. Sorry Mr. Perry.

Scramble for This Month

This should be easy. The design is really mixed up but fits together easily to reveal one of our largest commercial beekeepers and one of the industry's greatest leaders. He is widely travelled and served all of us in very important official positions. Send in your solution and get first place to enjoy three more years of ABJ; second, two years; third, one year; remainder four months each.

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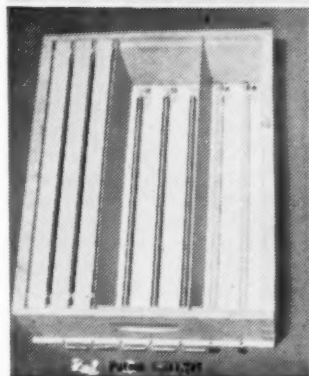
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—Crop and Market—

by M. G. Dadant

CROP SO FAR

Too early to judge of the crop in most northern sections. It is true that the season has been late in most instances, and this has mitigated against taking advantage of the earlier build-up flows. Also package weather has been very bad so shipments in many cases ran late, though this may not have been too bad since the northern buyers were hardly ready for bees at the dates they had originally set.

The southern areas, of course, are well into their major crops. These were disappointing in Georgia and Florida, being perhaps 75 percent of last year with little possibility of making up the deficit by later flows, though copious rains should tend to make forage at its best. Louisiana, Mississippi, and Alabama have had good flows when weather permitted the bees to get out. Total crop at least as good as last year. In Texas, fine prospects were tempered by adverse weather. The crimson clover could not be heavy, but likely vetch is much over 1957 with prospects still possible from hubam and cotton, better than a year ago on account of much better moisture conditions. In fact better moisture in most areas should tend to make later flows above common even with adverse weather and weed sprays.

Arizona and California are on the road to a good crop. Orange was perhaps below average, but ample moisture in the dry areas are making for good flows, which have already materialized from sage, and the honeys so far have been far and away lighter than in 1957. Market offers this year from California are going to mention honeys that have not been too much on the market in recent years—sage, manzanito, and buckwheat. The desert is in bloom, and the bees are going to make the most of it.

PROSPECTS

In general, though prospects do not approach the west coast, still with average weather, they should be above last year. Clovers in general are not plentiful, but this can be made up by better growing conditions. The subsoil moisture is still

wet, with exceptions in some northern areas like N. Dakota, Montana and into the Canadian Provinces. In much of the country succession of moisture with cool nights and warm days make for maximum nectar secretions. It remains to be seen if rains may prevent access to the possibilities.

The intermountain territories apparently have more moisture in reserve than usual. Again, weather conditions at nectar secretion time seem to be the deciding factor. Certainly, however, an abundance of moisture surely would make for optimism, where drought would do the opposite. We hardly see how the total crop this year can be less than a year ago even with short crop in the Southeast, and possibilities of drought conditions in the North. California, apparently can make up for much of this lack.

OLD HONEY

There are some stocks of old honey scattered around. Not enough to be at all burdensome, but perhaps they will help make for an uncertainty and may influence the packers to buy from hand to mouth rather than come out in quick competition for the new crop.

NEW HONEY SOLD

New honey has moved at about the same price as a year ago in the Southeast. In California, the only other new honey territory, there has been a tendency to "buy slowly" with an apparent weakening of the market. But the definite whiteness of color of the crop has been a favorable factor.

PRICES

There has been little object in dropping retail prices of honey, since the markets have been using mostly old honey of the 1957 crop. The demand has held up very well, in the off season, and most packers have been able to reduce their stocks to generally average amounts.

In Canada there is a quite heavy carry-over, especially in Ontario. This has been materially reduced by the combined effort of the Canadian

Council, the government and the Canadian beekeepers in general. In fact so much so that there is little talk of a drop in price of the 1958 crop. Rather perhaps a stiffening in line with the rather slow prospects and a spurt in the demand caused by the above marketing efforts.

HIGHER OR LOWER

Decidedly in the east half of the country there is little talk about a drop in honey prices. Beekeepers in these areas seek their own local markets and have little doubt but that they can dispose of the 1958 crop at 1957 prices. Some even suggest a moderate advance.

In the heavy producing areas the feeling is that there may be early, a "softening of the market" which they believe may later turn into a reaction. The foreign demand is as yet static, and is likely to be until a base of prices is established. A large coast crop used to have a debasing effect on all markets. Of late years, however, this has not been the case.

We are inclined to think that near 1957 prices can be maintained or at least reinstated depending on how much effort beekeeping circles make to advertise and sell the crop. The effort has been far from heavy over the past eighteen months.

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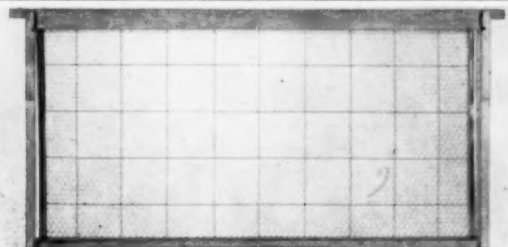
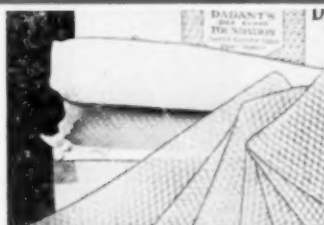
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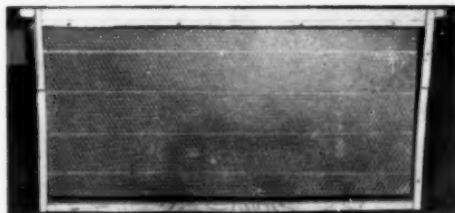
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